Functional Science Structure of the National Marine Fisheries Service
Southeast Fisheries Science Center

Southeast Fisheries Science Center (SEFSC)

The Southeast Fisheries Science Center (SEFSC) comprises scientific personnel and support staff within offices of the SEFSC Directorate (Miami, FL), Sustainable Fisheries Division (Miami, FL), Fishery Statistics Division (Miami, FL), Social Science Research Group (Miami, FL), Protected Resources and Biodiversity Division (Miami, FL), Beaufort Laboratory (Beaufort, NC), Panama City Laboratory (Panama City, FL), Mississippi Laboratories (Pascagoula and Stennis, MS), and Galveston Laboratories (Galveston, TX, and Lafayette, LA).

SEFSC Directorate— Miami, Florida

The SEFSC Directorate provides overall direction, science planning and coordination of SEFSC divisions and laboratories for the U.S. South Atlantic, U.S. Gulf of Mexico, and U.S. Caribbean Sea; provides executive direction and oversight for all SEFSC programs; coordinates scientific programs, investigations, and operations with headquarters offices of the National Marine Fisheries Service (NMFS), NMFS Office of Highly Migratory Species (HMS), and NMFS Southeast Regional Office (SERO); provides scientific information to the South Atlantic Fishery Management Council, Gulf of Mexico Fishery Management Council, Caribbean Fishery Management Council, Atlantic States Marine Fisheries Commission, Gulf of Mexico Marine Fisheries Commission, state and territorial fishery management agencies, the International Commission for the Conservation of Atlantic Tunas (ICCAT), associated non-governmental offices, and the public; conducts regional stock assessments through the Southeast Data Assessment and Review (SEDAR) process; coordinates scientific research and outreach with a variety of national and international programs.

Sustainable Fisheries Division--Miami, Florida

The Sustainable Fisheries Division conducts investigations and stock assessments on marine species managed under the Magnuson-Stevens Fishery Conservation and Management Act and the Atlantic Tunas Convention Act. Responsibilities include the development and application of new stock assessment models, integrated ecosystem assessments and associated activities in support of three federal fishery management councils and ICCAT. The division also consults with several fishery-independent data collection programs.

Highly Migratory Fisheries Branch—Conducts investigations and stock assessments on Atlantic highly migratory species such as tunas, swordfish, and billfish, much of which is conducted in collaboration with international scientists under the auspices of ICCAT; conducts analyses in support of the NMFS HMS, NMFS Office of International Affairs, and SEDAR assessments of king mackerel; conducts integrated ecosystem assessments in the Gulf of Mexico; monitors billfish catch and effort through a recreational billfish survey of tournaments which have a billfish prize category; collects measurements and biological samples from billfish and tunas; conducts biological investigations to improve stock assessments; conducts conventional and electronic tagging of billfish.

Gulf and Caribbean Fisheries Branch—Conducts investigations and stock assessments on reef fish and coastal pelagic species in the U.S. Gulf of Mexico and U.S. Caribbean Sea, including presentations and analyses in support of the Gulf of Mexico Fishery Management Council and the Caribbean Fishery Management Council; conducts assessments of several species managed by the South Atlantic Fishery Management Council in support of the Caribbean Regional Fisheries Mechanism; develops and incorporates environmental indicators into stock assessments; develops fishery-independent sampling programs.

Fisheries Statistics Division--Miami, Florida

The Fishery Statistics Division is the primary SEFSC unit for collecting and coordinating the collection of fishery-dependent data in the U.S. South Atlantic, U.S. Gulf of Mexico, U.S. Caribbean Sea and the North Atlantic Ocean for HMS pelagic longine vessels. Personnel work with nine States, one Territory, one Commonwealth, and two regional Commissions to collect data. Data and information are provided to three fishery management councils, NMFS SERO and NMFS HMS. Analytical support is provided for SEDAR and ICCAT assessments. The division administers the State-Federal Cooperative Statistic Program which supports state and territorial data collection throughout the region, and it manages centralized fishery information databases.

Fisheries Sampling Branch—Collects catch-effort information and biological samples from commercial fishing trips for coastal fisheries; assists in coordination of similar data collection through regional fisheries commissions and state and territorial fishery agencies; archives fishery-dependent data; supports some fishery monitoring, including quota monitoring for some species; annually collects information on fishing vessels; ensures quality control of state-collected landings data; conducts observer sampling of the Atlantic pelagic longline fishery for highly migratory species.

Fisheries Monitoring Branch—Collects and compiles fishery-dependent landings and catch-effort data in the southeast for coastal fisheries and in the North Atlantic Ocean for the swordfish and pelagic longline fisheries; collects commercial catch and effort data through vessel log books; monitors landings for the SERO; supports stock assessments using landings data collected by eleven states and territories, two regional commissions and for highly migratory species for the NMFS Northeast Regional Office; integrates and standardizes recreational fisheries statistics from three programs to support management and stock assessments; provides support to the SEDAR process through the compilation and analysis of fishery dependent data including bycatch estimation, landings tabulations, catch rate analyses, and integrative processes which provide catch at size and species composition; maintains an extensive data base on the weight composition of individual fish landed by the pelagic longline and swordfish fisheries.

Social Science Research Group--Miami, Florida

The Social Science Research Group conducts research and surveys on the economics and socio-cultural aspects of commercial and recreational fishing, and the dependence of fishermen and coastal communities on fishing.

Social Science Research Group—Collects data, estimates behavioral relationships, and develops models and analyses of regulatory alternatives for the use and conservation of living marine

resources; conducts investigations to meet current regulatory demands for information and projects that are forward-looking to evaluate impacts of future management proposals to meet the requirements of Executive Order 12866, the Regulatory Flexibility Act, National Standard 8, and the National Environmental Policy Act.

Protected Resources and Biodiversity Division--Miami, Florida

The Protected Resources and Biodiversity Division has the principal responsibility for determining the status of various marine species protected under the Marine Mammal Protection Act and the Endangered Species Act. It conducts investigations of the structure and function of tropical marine ecosystems, especially with respect to the diversity and productivity of fishery organisms and essential fish habitat in coral reef ecosystems and in the marine-dominated waters addressed by the South Florida Ecosystem Program.

Marine Mammal Unit—Assesses the stock status of marine mammal and provides scientific advice to regional, national and international management bodies; coordinates marine mammal investigations in the southeast, including various outside agency contracts; monitors distribution and abundance of cetacean populations in the U.S. Gulf of Mexico, U.S. mid-Atlantic Ocean, and U.S. Caribbean Sea; surveys and obtains biological samples of Atlantic and Gulf of Mexico bottlenose dolphin stocks; operates the southeast marine mammal stranding network; develops and applies techniques to monitor the behavior, movements, and habitat requirements of critically endangered north Atlantic right whales.

Sea Turtle Unit —Assesses the stock status of various endangered and threatened sea turtle species and provides advice to regional, national, and international management bodies; manages the southeast sea turtle stranding and salvage network; administers the cooperative marine turtle tagging program.

Biodiversity Unit —investigates the ecology of corals and other hard-bottom benthic organisms with emphasis on coral reef disturbance threats, causal mechanisms of change, and coral restoration science; investigates fishery ecology; develops and applies novel non-destructive, fishery-independent monitoring and habitat assessment techniques for the spatially managed marine areas in the southeastern United States and U.S. Caribbean Sea; evaluates long and short-term responses of marine stocks to zone protection, area closures, gear restrictions, no-take reserves, and other management strategies; provides oversight and coordination of NOAA investigations in coastal southern Florida to provide scientific information relevant to ecological functioning of Florida Bay and other Florida estuaries for southern Florida water management agencies; conducts ecological studies of pink shrimp as an indicator of water quality conditions in Florida Bay; conducts investigations and provide scientific information to Florida Keys National Marine Sanctuary management plans; conducts investigations of the early life history stages of fishes and crustaceans to determine factors that influence populations with a long-term goal of developing models to predict future population sizes.

Beaufort Laboratory--Beaufort, North Carolina

The Beaufort Laboratory conducts fishery stock investigations and assessments to support management of federally managed species by the South Atlantic Fisheries Management Council, and menhaden management by the Atlantic and Gulf States Marine Fisheries Commissions. It

recently initiated the SouthEast Fisheries Independent Survey to collect fishery-independent data for the southeastern U.S. waters. Additionally, it conducts investigations of the population biology of sea turtles and marine mammals in support of the Endangered Species Act and Marine Mamal Protection Act requirements, including federal take reduction teams and turtle expert working groups, as well as state sea turtle advisory committees.

Sustainable Fisheries Branch —Conducts investigations and fishery stock assessments; develops new fishery stock assessment models; serves on scientific committees, and assesses the impact of various regulatory proposals in support of management activities of the South Atlantic Fisheries Management Council and the Atlantic and Gulf States Marine Fisheries Commission; conducts an annual survey of Atlantic and Gulf of Mexico headboats to obtain estimates of catch, effort, and biological samples of fish landed in the recreational snapper and grouper fishery; monitors catch, effort, size, and age of commercial landings in the Atlantic and Gulf of Mexico menhaden fisheries and assesses the status of those stocks; processes otoliths, scales, and spines for age determination from reef fish and menhaden samples collected by various fishery dependent sources throughout the South Atlantic and Gulf of Mexico.

Fisheries Ecosystem Branch —Conducts fishery-independent surveys targeting reef-associated fishes in the U.S. South Atlantic to develop indices of abundance for use in stock assessments; develops new sampling and analytical methodologies to maximize utility of fishery-independent data; conducts biological and ecological investigations of southeastern U.S. reef fish species, including studies focusing on age and growth patterns, spatiotemporal trends in abundance, habitat-use patterns, and spawning aggregations; conducts investigations linking environmental forcing and fish population dynamics.

Protected Resources Unit — Hosts the National Sea Turtle Aging Laboratory, which develops and refines methods to investigate sea turtle age and growth, with a focus on skeletochronology and complementary stable isotope analysis; assesses abundance, demographics, movements, and distribution of sea turtles and bottlenose dolphins in coastal and estuarine waters of North Carolina; conducts investigations of western Atlantic bottlenose dolphin stock structure, impacts of human interactions, habitat use, and recovery; collaborates internationally to develop and refine methods for investigating the life history of cetaceans.

Panama City Laboratory--Panama City, Florida

The Panama City Laboratory conducts investigations on fishery biology, reef fish and their habitat, marine protected areas, and certain protected species. The laboratory conducts shark population assessments and manages a scientific observer program. Fishery assemblages primarily addressed by the laboratory are reef fishes, mackerels, tunas, sharks and rays.

Fisheries Unit —Collects and analyzes biological samples to obtain life history statistics, together with spatial and environmental information, required for stock delineation and to perform assessments of pelagic and reef fishery species; delineates habitat and assesses the distribution and abundance of juvenile and adult reef fish in the northeastern Gulf of Mexico; monitors and evaluates MPA efficacy in the eastern Gulf of Mexico and the U.S. South Atlantic Bight using mapping and underwater survey techniques; surveys the distribution, relative abundance, and life history parameters of shark species in coastal waters; conducts stock assessments on Atlantic and Gulf of Mexico shark species; manages observer programs to

monitor the shark bottom longline and southeast coastal gillnet fisheries to assess catch and bycatch; conducts studies important to the conservation and recovery of species of interest, including smalltooth sawfish and Gulf sturgeon, both listed by the Endangered Species Act

Mississippi Laboratories--Pascagoula and Stennis Space Center, Mississippi

The Mississippi Laboratories, located at Pascagoula, MS and at Stennis Space Center, Bay St. Louis, Mississippi, have primary responsibility for conducting fishery independent monitoring, developing and applying innovative gear technology, developing and applying new innovative sampling methods, acquiring environmental information, including satellite-based, remotely-sensed data, and developing ecosystem models that integrate environmental, oceanographic, and fisheries data. The Pascagoula Laboratory houses three large NOAA research vessels used in collecting fishery-independent data.

Resource Surveys Branch —Conducts fishery independent monitoring in the U.S. Gulf of Mexico, U.S. South Atlantic, and U.S. Caribbean Sea (including bottom trawl surveys, icthyoplankton surveys, trap/video surveys, shark/red snapper longline surveys, and marine mammal surveys) to develop fishery-independent indices of abundance, recruitment and spawning; assesses bycatch of protected species and fish in commercial and recreational fisheries and develops bycatch mitigation methods; coordinates the Southeast Area Monitoring and Assessment (SEAMAP) Program to ensure consistency in fishery independent sampling methods between state, university and federal surveys; conducts aerial surveys and tagging studies for marine mammals; coordinates the Mississippi sea turtle strandings program; participates in regional stock assessments.

Harvesting and Engineering Branch —Designs, tests, and evaluates new fishing gears to reduce bycatch of non-target species (e.g., bycatch reduction devices, turtle excluder devices); assists domestic and international fishing industries to implement TEDs and BRDs; operates the CoastWatch Regional Node to provide near real-time environmental and fisheries data; develops and implements innovative data collection methods (e.g., automated underwater vehicles, electronic logbooks); develops ecosystem models by integrating environmental, oceanographic and fisheries data.

Galveston Laboratories--Galveston, Texas, and Lafayette, Louisiana

The Galveston Laboratories conduct investigations primarily in the northwestern Gulf of Mexico to better understand the relationship between coastal habitats and fishery productivity, to assess the status of commercially valuable shrimp populations in the Gulf of Mexico, and to investigate and monitor the health of protected sea turtle and marine mammal species.

Fishery Ecology Branch—Conducts investigations of essential fish habitat and the role of coastal habitats in the productivity of fishery species; contributes to the design of restored wetlands; develops mechanistic ecosystem models linking habitats and fishery production; provides support for Coastal Wetlands Planning Protection and Restoration Act in Louisiana.

Fishery Management Branch—Investigates ecological impacts of oil platform removal; assesses Gulf of Mexico shrimp stocks and forecasts annual harvest; evaluates alternative shrimp management strategies; collects commercial fishery data in the northwestern Gulf of Mexico;

conducts observer-based evaluation of bycatch reduction devices and turtle excluder devices during commercial shrimp trawling operations.

Protected Species Unit—Conducts the rearing of captive sea turtles for use in TED certification trials, physiological investigations, and tagging studies; conducts rehabilitation of sick and injured sea turtles and marine mammals; conducts sea turtle stranding and salvage efforts along the north Texas coast.